
ated annealing algorithm

ect the best solution vector x_0 to be optimized

ialize the parameters: temperature T , Boltzmann's constant k , reduction factor c

ile termination criterion is not satisfied **do**

for number of new solution

Select a new solution: $x_0 + \Delta x$

if $f(x_0 + \Delta x) > f(x_0)$ **then**

$f_{\text{new}} = f(x_0 + \Delta x)$; $x_0 = x_0 + \Delta x$

else

$\Delta f = f(x_0 + \Delta x) - f(x_0)$

random $r(0, 1)$

if $r > \exp(-\Delta f/kT)$ **then**

$f_{\text{new}} = f(x_0 + \Delta x)$, $x_0 = x_0 + \Delta x$

else

$f_{\text{new}} = f(x_0)$,

end if

end if

$f = f_{\text{new}}$

Decrease the temperature periodically: $T = c \times T$

end for

while
